



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/680,293	10/06/2000	Takehiko Shigefuji	P19894	1800
7055	7590	10/19/2006		
GREENBLUM & BERNSTEIN, P.L.C. 1950 ROLAND CLARKE PLACE RESTON, VA 20191			EXAMINER GOODMAN, CHARLES	
			ART UNIT 3724	PAPER NUMBER

DATE MAILED: 10/19/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/680,293

Applicant(s)

SHIGEFUJI ET AL.

Examiner

Charles Goodman

Art Unit

3724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 14-19 and 21-41 is/are pending in the application.
- 4a) Of the above claim(s) 15-19 and 23-42 is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 14,21,22 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on ____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. ____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. ____. |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date ____. | 6) <input type="checkbox"/> Other: ____. |

DETAILED ACTION

1. The Amendment filed on 7/24/2006 has been entered.

Election/Restrictions

2. This application contains claims 15-19 and 23-41 drawn to an invention nonelected with traverse in Paper No. 12. A complete reply to the final rejection must include cancellation of nonelected claims or other appropriate action (37 CFR 1.144) See MPEP § 821.01.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claims 14, 21 and 22 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
 - a. The “wherein” clause of claim 14 is vague and indefinite to the extent that it is not clear how this “maximum” number of tools ties in with the previously recited steps, i.e. what relevancy is there to the maximum number of tools and how is this maximum number of tools determined? The specification that Applicant points to does not provide any more illumination on this point.

Claim Rejections - 35 USC § 103

5. The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

6. As best understood, claims 14, 21, and 22 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anjo (US 5,046,014) in view of Kamada (US 5,595,560) and Watanabe (US 5,297,022).

Anjo discloses the invention substantially as claimed including, inter alia, identification media (45) on a punch (17) and a punch identification media reader (43, 51). In Anjo, the media identifies both the punch and the corresponding die; hence, Anjo lacks a separate identification reader and arguably a separate identification media for the die. In addition, Anjo lacks a specific reference to a tool storage device that stores the plurality of punches and dies. It is the Examiner's position that the claimed "tool storage device" is inherent in Anjo to the extent that Anjo's punches and dies have to be replaced at some point in time due to wear and these (replacement) tools must be stored in some fashion. It is the corresponding automated interaction/selection between the tools on the support members and the tools in the storage device that is lacking in Anjo.

In that regard, providing a separate reader and identification media for the die are deemed to be an obvious addition to Anjo since the single medium reader as taught by Anjo is capable of reading media from both the punch and the die and since both a punch and die are of equal importance in Anjo due to the fact that in a punching operation, the punch and die must work together to punch. Note c. 4, ll. 30-32. To further expand this point, for a given punch of specific design, i.e. dimensions and

Art Unit: 3724

shape, there must be a corresponding die for that given punch as is well known in the art. For example, one of ordinary skill in the art would not have a punch having a circular punching face with a diameter of 10 mm cooperating with a die having a 15 mm diameter circular opening because that would not allow for the desired punch pattern, i.e. the larger diameter opening causes the typical web material (usually a sheet of metal) to deform in the area of the diameter difference between the punch and die and the resulting punched hole would not be bur free. On the other hand, a die having a 10.1-11 mm diameter circular opening (or any opening within close tolerances that facilitate passage of the punch therethrough) is the die that the ordinarily skilled artisan would associate with the 10 mm punch because this die allows for a substantially bur free punched hole, i.e. the difference in diameters between the punch and the die is substantially small enough to prevent burring (ragged edges in the punched hole opening) during the punching operation. Kamada's teachings illustrate this point. Kamada teaches a die management method for punch presses wherein both the punch (16) and the die (18) have their own separate identification media and this information is read by an identification media reader (40). See c. 5, l. 51 - c. 6, l. 14. At the very least Kamada teaches that an identification reader for a punch may also be used to read a die; that the correlation of, e.g. shape, of the punch is important with respect to the die (c. 6, ll. 19-24); and that having a separate identification media for the die allows for better management of both the punches and dies and combinations thereof. Note e.g. c. 1, ll. 50-62. Moreover, an important teaching with respect to Kamada is that the condition and replacement schedule for the punches and dies are controlled separately, which allows for better management of the tool parts by not having to change the tools when it

Art Unit: 3724

is not necessary to so perform, i.e. “efficiency”. Furthermore, Kamada teaches utilizing the information read from each of the punches and dies both in the support members and also in a tool storage device (10 - note c. 4, ll. 32-56) to determine and automate the replacement schedules thereof, i.e. “generating an NC program...”, the information being the same type of information that Anjo reads. Therefore, it would have been obvious to the ordinary artisan at the time of the instant invention to provide the method of Anjo with an additional reader, albeit for the die and a separate identification media for the dies and a tool storage device for the replacement tools as taught and suggested by Kamada in order to facilitate enhanced tool exchange management of the punches, dies and combinations thereof, since with respect to the separate reader it has been held that mere duplication of the essential working parts of a device involves only routine skill in the art. *St. Regis Paper Co. v. Bemis Co.*, 193 USPQ 8.

Regarding the “minimizing” and “efficiency” aspect in the claims, these are deemed to be obvious parameters in which the ordinarily skilled artisan takes into consideration when operating the punching processes although Anjo, alone or modified, may lack specific references to this feature. Moreover, such minimizing is inherent in Anjo because according to Applicant’s disclosure, tool replacements are minimized merely by allowing the control to select the tools mounted on the turret. Note Application Specification, p. 24, ll. 2-5. In line with the instant application definition, then Anjo, alone or modified, inherently performs the same due to the fact that each of the punches and dies are identified on the turret and the operator selects the combinations proper for the operation. Note c. 3, ll. 5-9 and c. 4, ll. 22-29. To underline this point, Watanabe teaches that it is old and well known in the art that in

Art Unit: 3724

programming a machining operation, minimizing tool changing operations is a well known programming feature to the ordinary artisan, all in the name of efficiency. Note c. 4, l. 63 - c. 5, l. 25 with specific reference to c. 5, ll. 10-13. Therefore, since it has been argued that Anjo lacks this feature, it would have been obvious to the ordinary artisan at the time of the instant invention to provide the modified method of Anjo with the programming step of minimizing the number of punch and die replacements as taught and suggested by Watanabe in order to facilitate efficient operation of the punch press by maximizing tool usage.

Regarding the “wherein” clause of claim 14, to the extent understood, it is the Examiner’s position that the maximum number of tools mounted on the punch press is already taken into account by the ordinary artisan in determining replacements thereof. Thus the modified invention of Anjo would inherently include this limitation in the program.

Response to Arguments

7. Applicant's arguments filed 7/24/2006 have been fully considered but they are not persuasive.

In response to Applicant’s basic argument that the proposed combination lacks the newly added subject matter, this argument is traversed.

First, that limitation in claim 14 is not clear to the extent that the claim as a whole do not provide any correlation between the maximum number of tools and the other steps recited therein.

Second, as best understood, the description “by selecting tools mounted as much as possible” is not clear to the extent the nexus between this and the tool changing is not clearly understood. Is it referring to replacing only the tools mounted on the press, or minimizing the number of tools changes required, etc.? As best understood, the Examiner takes the position that the maximum number of tools mounted on the press is already accounted for in any type of tool replacement program for a specific turret punch.

Conclusion

8. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Charles Goodman whose telephone number is (571) 272-4508. The examiner can normally be reached on Monday-Friday between 8:30 AM to 6:00 PM EST.


Art Unit: 3724

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Boyer Ashley, can be reached on (571) 272-4502. In lieu of mailing, it is encouraged that all formal responses be faxed to **(571) 273-8300**.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at (866) 217-9197 (toll-free).

cg

October 16, 2006


Charles Goodman
Primary Examiner
AU 3724

CHARLES GOODMAN
PRIMARY EXAMINER